

## Amendments to the Claims

Please amend the claims as follows:

1. (Currently Amended) A channel estimator using a CIR (channel impulse response) estimating value and adopting signal masking, comprising:

~~a CIR masking unit for removing a noise included in the CIR estimating value;~~

a mask signal generator generating a mask signal according to the CIR estimating value;

a CIR delayer matching a synchronization between the CIR estimating value and the mask signal; and

a masking processor removing ~~the a noise included in the CIR estimating value~~ by performing the masking so that the CIR estimating value is outputted only for a section where the mask signal exits.

wherein the CIR estimating value is generated by detecting a maximum value of a cross correlation value between a received signal and a trained sequence, and operating a cross correlating vector generated by using the maximum value and the inverse matrix of an auto correlating value of the trained sequence.

2. (Canceled)

3. (Previously Presented) The channel estimator of claim 1, wherein the mask signal generator generates the mask signal based on a CIR critical value and a mask window size wherein the CIR critical value is a minimum value accredited with a real CIR.

4. (Original) The channel estimator of claim 3, wherein the CIR critical value is set to a value between '0.1' and '0.2' when a maximum value of a CIR is normalized as '1' on a situation that there exists no ghost at all.

5. (Original) The channel estimator of claim 3, wherein the mask window size is about  $\pm 10$  symbols centering around a CIR exceeding the CIR critical value.

6. (Previously Presented) The channel estimator of claim 1, wherein the masking processor is a multiplexer selecting to output either the CIR estimating value or '0' according to the mask signal.

7. (Previously Presented) The channel estimator of claim 1, wherein the masking processor is a multiplier multiplying the mask signal and the CIR estimating value together to output the CIR estimating value of a section where the mask signal is not '0'.

8. (Previously Presented) A channel estimator adopting signal masking, comprising:

- a trained sequence generator outputting a trained sequence;

- a cross correlator finding a cross correlating value between a received signal and the trained sequence;

- a max value searcher detecting a maximum value of the cross correlating value by predetermined field unit;

- a cross correlating vector generator outputting a cross correlating vector amounting to a CIR (channel impulse response) estimating range based on the maximum value of the cross correlating value;

- a ROM previously storing to output an inverse matrix of an auto correlating value of the trained sequence;

- an operator finding a CIR estimating value using the inverse matrix of the auto correlating value and the cross correlating vector; and

- a CIR masking unit removing a noise included in the CIR estimating value.

9. (Original) The channel estimator of claim 8, the CIR masking unit comprising:

a mask signal generator generating a mask signal according to the CIR estimating value;

a CIR delayer matching a synchronization between the CIR estimating value and the mask signal; and

a masking processor removing the noise by performing the masking so that the CIR estimating value is outputted only for a section where the mask signal exits.

10. (Original) The channel estimator of claim 9, wherein the mask signal generator generates the mask signal based on a CIR critical value and a mask window size wherein the CIR critical value is a minimum value accredited with a real CIR.

11. (Original) The channel estimator of claim 10, wherein the CIR critical value is set to a value between '0.1' and '0.2' when a maximum value of a CIR is normalized as '1' on a situation that there exists no ghost at all.

12. (Original) The channel estimator of claim 10, wherein the mask window size is about  $\pm 10$  symbols centering around a CIR exceeding the CIR critical value.

13. (Original) The channel estimator of claim 9, wherein the masking processor is a multiplexer selecting to output either the CIR estimating value or '0' according to the mask signal.

14. (Original) The channel estimator of claim 9, wherein the masking processor is a multiplier multiplying the mask signal and the CIR estimating value together to output the CIR estimating value of a section where the mask signal is not '0'.

15. (Canceled)